

## 4.2 The Mean Value Theorem

### 單選題

1. How many points of intersection are there between  $y = x^2$  and  $y = 2^x$ ?  
(A) 0;      (B) 1;      (C) 2;      (D) 3.

Ans: D [99 學年度]

2. How many real **roots** does the equation  $4x^5 + x^3 + 2x + 4 = 0$  have?  
(A) 1;      (B) 2;      (C) 3;      (D) 5.

Ans: A [103 學年度]

### 填充題

1. Let  $f'(x) \geq 3$  for all  $x \in [1,4]$ . Suppose  $f(1) = 1$  and  $f(4) = 10$ . Then  
 $f(2) = \underline{\hspace{2cm}}$ .

Ans: 4 [104 學年度]